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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/723,042

11/26/2003

Jinchun Xie

NLP-0202-US

7827

7590

12/15/2006

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EXAMINER

WINAKUR, ERIC FRANK

ART UNIT

PAPER NUMBER

3768

DATE MAILED: 12/15/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/723,042

Applicant(s)

XIE, JINCHUN

Examiner

Eric F. Winakur

Art Unit

3768

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 September 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-5,7,9,11-13,16 and 18-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7,9,11-13,16 and 18-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

1. Applicant is reminded that although it is Office policy that certain non-compliant amendments will be entered and examined, to properly conform with 37 CFR 1.121(c)(4) the text of cancelled claims should not be presented (see MPEP 714).
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Claim Objections***

3. Claims 1 - 5, 7, 9, 11 - 13, 16, and 18 - 20 are objected to because of the following informalities: In claim 1, line 4, the period after "nm" should be deleted. In claim 7, the phrases "the optical source is a" and "and the radiation" should be deleted, as the optical source is already defined as a CW laser in claim 1. In claim 16, "of viscous liquid" (line 4) should read "or viscous liquid". In claim 20, "finer" (line 4) should read "finger"; "and incident" (line 6) should read "an incident"; and "of toe" (line 6) should read "or toe". Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 16 and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Presby. Presby teaches an arrangement in which a gel or viscous liquid layer is affixed to both sides of a window by a film. At least some of the embodiments releasably affix the elements. Further, the window and gel/viscous liquid both have a refractive index approximately equal to the refractive index of a nail. See embodiments of Figures 5A, 6, and 9, and the descriptions thereof.

***Claim Rejections - 35 USC § 103***

6. Claims 1 - 7, 11, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaiken et al. in view of Simonsen et al. Chaiken et al. teach a method for measuring an analyte in tissue (column 5, lines 7-8) comprising the steps of illuminating the tissue with laser radiation having a first excitation wavelength (column 5, lines 9-10; column 8, lines 50 - 67), collecting the Raman spectra emitted by the tissue (column 5, lines 23-24; column 9, lines 1 - 23), and analyzing the collected spectra to determine the amount of analyte present in the tissue (column 5, lines 24-25; column 9, lines 24 - 26) by comparing the spectra emitted in response to the wavelength (column 5, lines 33-35). The Raman spectra analyzed can include both Stokes and anti-Stokes spectra (column 5, lines 40-41). Chaiken et al. discloses the invention substantially as claimed except that the sample volume lies within the nailbed. However, Simonsen et al. (referenced by Chaiken et al., column 8, line 49) teaches the use of the nailbed as a preferred body part for in vivo analytical determination (column 13, lines 16-22). Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use Chaiken et al.'s method of measuring analyte in tissue on the

nailbed as taught by Simonsen et al. since Chaiken et al. teaches that the arrangements of Simonsen et al. are suitable for use in their invention for in vivo analytical determination. Chaiken et al. discloses the invention substantially as claimed including using radiation with the wavelengths of 647 nm (column 7, line 13) and measuring the analyte of tissue while the tissue is in a blood replete state (column 6, lines 17-20), which can be obtained through pressure (column 4, lines 61-62). Chaiken et al. does not show the pressure as coming from pressing a digit downward. However, Simonsen et al. discloses a pressure weight pressing on the fingertips from above (column 20, lines 23-24) in order so that the contact pressure between the finger and the contact surface of the measuring device would be sufficiently high and reproducible. Therefore, it would have been obvious to one having ordinary skill in the art at the time of the invention to use Chaiken et al.'s method of measuring analyte tissue with a pressure weight pressing on the fingertips as taught by Simonsen et al. since Chaiken et al. teach that the arrangements of Simonsen et al. are suitable for use in their invention in order to have a contact pressure that is sufficiently high and reproducible.

7. Claims 9 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chaiken et al. and Simonsen et al. as applied to claim 1 above, and further in view of Wach et al. The combination teaches all of the features of the claimed invention except that a window plate and a gel or viscous liquid is interposed between the optical source and the nail. Wach et al. teach that windows and gel maximize coupling efficiency (column 52, lines 64-67 and column 54, lines 1-6). Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to use the

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windows and gel of Wach et al. in the invention of the combination since the windows and gel maximize the coupling efficiency.

8. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Presby as applied to claim 16 above. Presby teaches all of the features of the claimed invention except that a plurality of structures are attached as a continuous strip. However, it was well known in the art at the time of the invention to connect elements in a separable, continuous strip. Without a showing of unexpected results or criticality, it would have been obvious to one of ordinary skill in the art at the time of the invention to connect the structures of Presby in a separable, continuous strip, since it has generally been held to be within the skill level of the art to use known packaging techniques to protect and transport elements.

9. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chaiken et al. in view of Simonsen et al. and Lepper (5,743,262). The combination does not teach means for focusing the beam, but Lepper et al. teach that such focusing is desirable in blood glucose sensor systems (column 6, lines 21 - 23). It would have been obvious to one of ordinary skill in the art at the time of the invention to use focusing means of Lepper et al. in the invention of the combination since such focusing is desirable in blood glucose systems.

### ***Response to Arguments***

10. Applicant's arguments with respect to claims 1 - 7, 9, 11 - 13, 16, and 18 - 20 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Eckhouse, Figure 13, teaches an arrangement including glass and a gel having indices of refraction that are similar to that of skin.

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

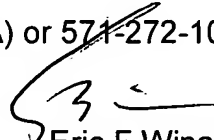
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric F. Winakur whose telephone number is 571/272-4736. The examiner can normally be reached on M-Th, 7:30-5; alternate Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eleni Mantis-Mercader can be reached on 571/272-4740. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or ~~571-272-1000~~.

  
Eric F Winakur  
Primary Examiner  
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